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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of

Toyoji GUSHIMA et al.

Serial No. 09/832,938

Attn: APPLICATION BRANCH

Filed April 12, 2001

Attorney Docket No. 2001-0427A

OPTICAL INFORMATION RECORDING APPARATUS FOR STABLE RECORDING

**PRELIMINARY AMENDMENT**

Assistant Commissioner for Patents,  
Washington, DC 20231

Sir:

**THE COMMISSIONER IS AUTHORIZED  
TO CHARGE ANY DEFICIENCY IN THE  
FEES FOR THIS PAPER TO DEPOSIT  
ACCOUNT NO. 23-0975**

Kindly amend the above-identified U.S. reference patent application;

**IN THE SPECIFICATION:**

Please replace the paragraph beginning at page 2, line 9, with the following rewritten paragraph:

In the PVM technique, it is necessary to form a record mark without distortion, that is, form the leading and trailing ends of the record mark in the same quality because the width of record mark has information. Especially, when a long mark is formed in a phase-change-type optical disk, the width in the radial direction of a record mark increases towards the latter-half portion due to the thermal storage effect of a recording film, that is, the record mark is distorted like a tear drop. In order to solve the problems, a recording method is proposed for forming one record mark by applying a plurality of short pulse strings (e.g. Japanese patent laid-open Publication No. 185628/1991).

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